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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/074,549  | 02/12/2002  | Robert J. Sinaiko    | SHPR-01041USR SRM   | 6755             |
| 23910   | 7590        | 10/24/2003           | EXAMINER            |                  |
| FLIESLER DUBB MEYER & LOVEJOY, LLP<br>FOUR EMBARCADERO CENTER<br>SUITE 400<br>SAN FRANCISCO, CA 94111 |             |                      | TRAN. THAO T        |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 1711                |                  |

DATE MAILED: 10/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

## Application No.

10/074,549

## Applicant(s)

SINAIKO ET AL.

## Examiner

Thao T. Tran

## Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-70 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-70 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 1711

However, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, that the locations of the structures would have been an obvious matter of design choice. The air inlets, air outlets, the electrodes, or the ion generators would work equally well as taught by Satyapal, and Applicants have not disclosed the advantages of these particular locations of the inlets, the outlets, the electrodes, or the ion generators over other locations.

In regards to claims 10, 31, 47, 58-59, it has been settled within the skill in the art that the manner of operation, intended use, or how the product is made, would have insignificant patentable weight when an apparatus claim is being considered. See MPEP 2114.

In regards to claims 18-19, 40-41, 51, 57, Satyapal teaches UV lights upstream of the ion generator (see col. 4, ln. 47-50).

In regards to claims 46, 61-62, Satyapal teaches the inlet and the outlet cover substantially all of the sides of the housing (see Figs. 2,4).

7. Claims 6, 11-13, 28, 32-34, 66-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Satyapal as applied to claims 1, 23, 45, 55, 65 above, and further in view of Moon (US Pat. 5,215,558).

Satyapal is as set forth in claims 1, 23, 45, 55, and 65 above and incorporated herein.

Satyapal does not teach the use of a focus or a trailing electrode in the ion generator.

Moon teaches the use of ionizing, collector, auxiliary, and accelerating electrodes (see Fig. 1). The auxiliary electrodes (focus electrodes) are between the ionizing and collector electrodes, whereas the accelerating electrodes (trailing electrodes) are at the end of the collector electrodes.

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: on pages 35-38, the specification describes electrodes 252, 254, 256, but these structures are not shown in Figures 11A-D. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

2. Claims 16-17, 23-54, 66 are objected to because of the following informalities:
- a) claims 16 and 37, line 2, "includes" should be changed to --include--; line 3, "parallel" should be changed to --parallel to--;
  - b) claim 23, line 5, "inlet" should be changed to --inlets--;
  - c) claim 27, line 1, "said outlets" should be changed to --second outlets--;
  - d) claim 45, line 2, "use of" should be changed to --all of--;
  - e) claim 66, line 1 "focus" should be changed to --focus electrode--.
- Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 45-64 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 45 and 48 are indefinite due to the conflict between the limitation "a housing with a top, a bottom and at least one side located between the top and the bottom" in claim 45 and the limitation "said side of said housing has substantially opposed surfaces with one of the outlets located on each of the opposed surfaces".

Claim 55 is indefinite due to the conflict between the limitation "a housing with a top, a bottom and at least one side located between the top and the bottom" and the limitation "said side including first and second opposed surfaces".

It is unclear to the examiner as to how the side is structurally related to the top and the bottom of the housing, and that the side has two opposed surfaces. Clarification on the structure of the side and its' structural relationships with the top and the bottom of the housing, and the outlet(s) is required.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

Art Unit: 1711

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-5, 8, 10, 14, 17-27, 29, 31, 35, 39-48, 51-59, 61-62, 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Satyapal et al. (US Pat. 5,879,435).

Satyapal teaches an electronic air cleaner 10, comprising a housing 20 having an air inlet 22; an air outlet 24; and an ion generator 40 (electrostatic cell) including ionizer wires 46 and collector plates 42; UV lights 50; the housing having a top, a bottom, and sides (see abstract; Figs. 2, 4).

In regards to claims 1-2, 23-24, although Satyapal does not teach a plurality of the air inlet, or the air outlet, or the ion generator, it would have been within the skill in the art that duplication of parts would have no patentable significance. See MPEP 2144.04, section VIB. Moreover, the air inlet and air outlet of Satyapal are large, and the ion generator of Satyapal contains many electrodes, these structures would work equally well as those in the presently claimed invention.

In regards to claims 3, 20-22, 25, 42-44, 52-54, 65, Satyapal teaches the collector electrodes being plate electrodes (see abstract). However, it has been within the skill in the art that particular configurations of the electrodes would have been an obvious matter of design choice, depending upon user's preference and intended use. Furthermore, Applicants have not disclosed the advantages of the electrodes having this particular configuration over other configurations. See MPEP 2144.04, section IVB.

In regards to claims 4-5, 8, 14, 17, 26-27, 29, 35, 39, 45, 48, 55-56, Satyapal does not teach the inlets and the outlets are respectively located on opposing surfaces of the housing, or the location of the electrodes, or the ion generators, with respect to the inlets and the outlets.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have included the focus and trailing electrodes, as taught by Moon, into the apparatus of Satyapal. It has been known in the art that the focus electrodes are to strengthen the electric field, and the trailing electrodes to enhance effectiveness of dust collection. With respect to the location of the focus and trailing electrodes, it has been within the skill in the art that locations of would have been an obvious matter of design choice. The electrodes would work equally well as taught by Moon, and Applicants have not disclosed the advantages of these particular locations of the inlets, the outlets, the electrodes, or the ion generators over other locations.

8. Claims 7, 15-16, 36-38, 49-50, 60, 63-64, are rejected under 35 U.S.C. 103(a) as being unpatentable over Satyapal as applied to claims 1, 23, 45, 55 above, and further in view of Anzai (US Pat. 4,772,297).

Satyapal is as set forth in claims 1, 23, 45, and 55 above and incorporated herein.

Satyapal does not teach the air inlets and air outlets being covered by fins, or a control device located on the top surface of the housing.

Anzai teaches an air conditioner (air cleaner), comprising an upstanding, elongated housing A having a top surface and a control device (operation section C and sensor section D); an inlet B1 and an outlet B2 covered with fins (see abstract; Figs. 1-6; col. 2, ln. 41-45, 57-59; col. 3, ln. 41-60; col. 4, ln. 50-57).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have included the fins covering the air inlets and air outlets, and a control device, as taught by Anzai, in the apparatus of Satyapal. Having fins covering the air inlets and

Art Unit: 1711

air outlets would enable better control of the airflow into and out of the air conditioner; whereas having a control device would enable better control of the operation of the air conditioner.

***Contact Information***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao T. Tran whose telephone number is 703-306-5698. The examiner can normally be reached on Monday-Friday, from 8:30 a.m. - 5:00 p.m..

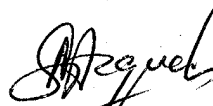
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 703-308-2462. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

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October 9, 2003

  
SAMUEL A. ACQUAH  
PRIMARY EXAMINER  
GROUP 120/1700